HAMPTON FALLS - HAMPTON
I-95 Bridge & Taylor River Pond Dam Project

AGENDA

- Welcome
- Partners
- Need
- Alternatives
- Impact Assessment
- Next Steps
- Questions or Comments

October 2007

PROJECT PARTNERS

- NH Department of Transportation
- NH Department of Environmental Services
  Dam Bureau and Coastal Program
- NH Fish & Game
- NH Estuaries Program
- National Oceanic and Atmospheric Administration (NOAA)
- US Fish and Wildlife Service
- Gulf of Maine Council

AERIAL VIEW - PROJECT AREA

October 2007

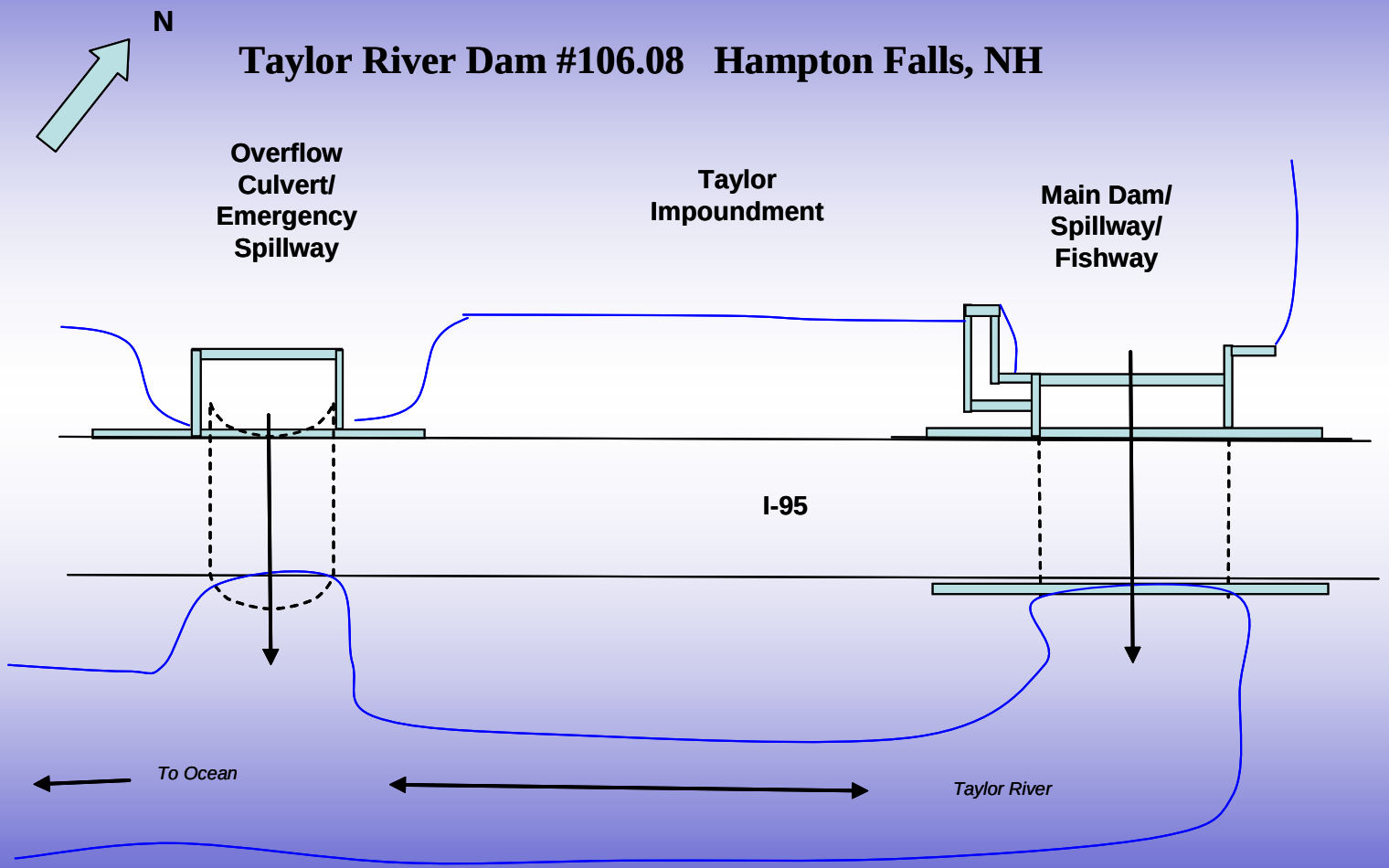
AERIAL VIEW
BRIDGE AND DAM (FISHWAY)

New Hampshire DOT Department of Transportation

NHDES

October 2007

AERIAL VIEW
BRIDGE AND DAM (FISHWAY)



New Hampshire DOT Department of Transportation
NHDES

October 2007

NEED FOR THE PROJECT

- Deteriorated Bridge that carries I-95 over the Taylor River
- Deteriorated Dam that does not provide good fishway for River Herring and other saltwater fish trying to spawn in freshwater
- Flooding Issues with Homes Adjacent to the Taylor River Pond

I-95 BRIDGE EXISTING CONDITIONS

- On NHDOT High Priority List to Replace
- Steel Sheet Piling Heavily Rusted with Holes
- Concrete Slab Shows Cracks and Spalls
- Water Leaking Through Structure from Roadway

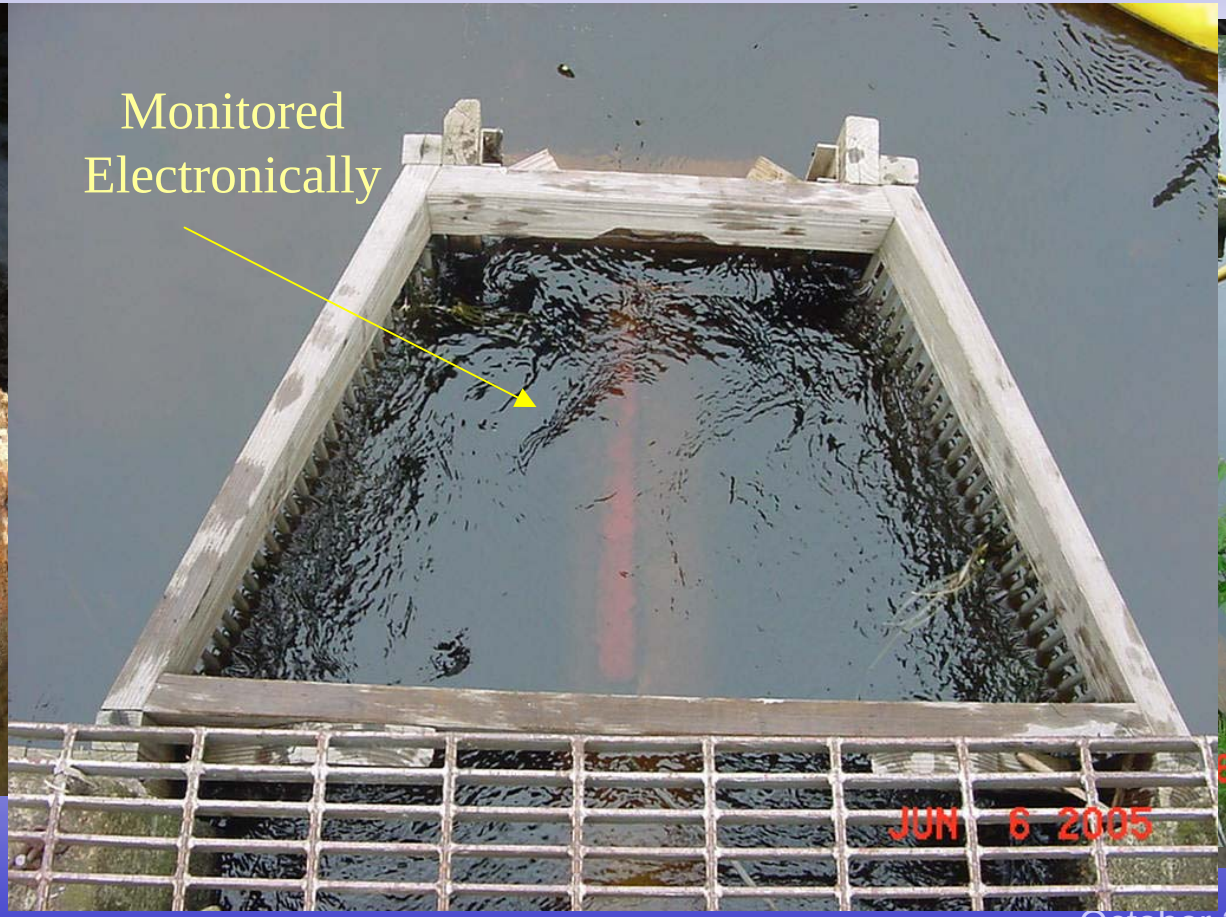
TAYLOR RIVER POND DAM
EXISTING CONDITIONS

- Spillway sheet piles badly deteriorated
- Major leakage through the sheet piles
- Settlement at the left abutment

EXISTING FISHWAY

TAYLOR RIVER FISH LADDER EXISTING CONDITIONS

- Structurally tied into dam - Degraded condition
- Fish passage does occur - Monitored daily



Diadromous Fish in the Taylor River – River Herring (Alewife and Blueback) and American Eel

Glass/Elver Stage

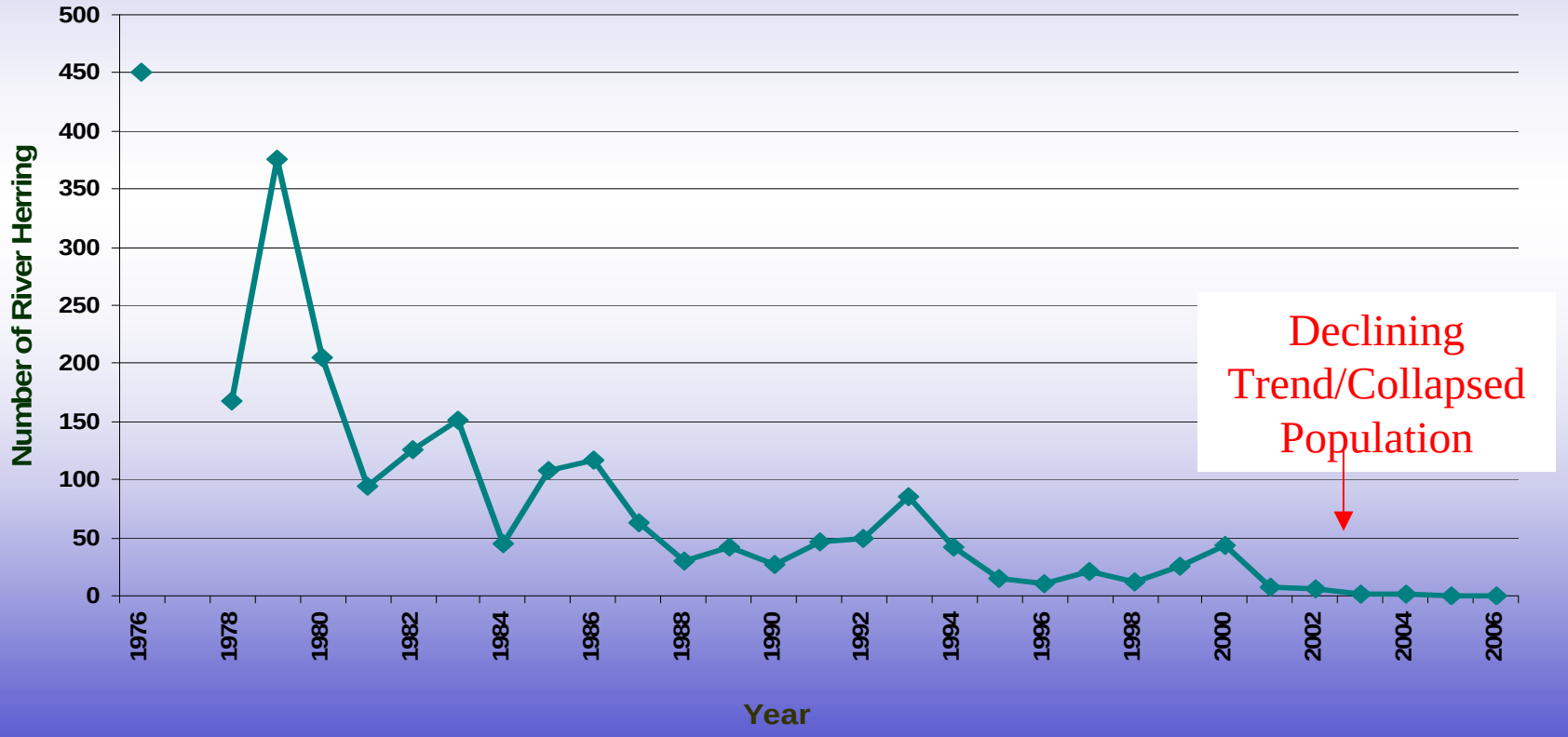
Adult American Eel

- Upstream migration occurs from March through August
- Upstream
through J
- Downstream migration occurs from July through October

Downstream migration of adults occurs from August through November (or even during winter months)

October 2007

Numbers of River Herring Monitored Through Taylor River Fish Ladder



October 2007

FLOODING

- Existing Dam and Bridge arrangement resulted in major flooding in May 2006 when water reached approx elev 16

- Home sills at approx elev 14.25

APPROACH TAKEN

- Develop Feasibility Study with input from Town Officials, Natural Resource Agencies, Conservation Commission, Cultural Resource Agency, Users of the Resource and Residents of the Area
- Describe Existing Environment
- Identify Alternatives to Address the Needs Identified
- Assess Effects of Alternatives on Existing Resources

OPTIONS AVAILABLE FOR BRIDGE

- Repair or Replace the Bridge, either in existing location or historic channel location
- Additional hydraulic capacity is needed
  - Requires replacing the Bridge
- Difficult to construct in existing location
  - Recommend building new Bridge south of existing bridge in rivers historic location

NEW BRIDGE LOCATION

New Hampshire DOT Department of Transportation

NHDES

October 2007

OPTIONS AVAILABLE FOR DAM AND FISHWAY WITH NEW BRIDGE OPTION

- Replace the Dam and Fishway

  In the new bridge location to provide for additional hydraulic capacity and fish passage

  or

- Remove the Dam

  Provides for fish passage and increased hydraulic capacity

SUMMARY OF ALTERNATIVES

- Alternative A: No Action
- Alternative B: Replace Bridge, Dam, Fishway in New Location
- Alternative C: Replace Bridge, but do not build a new dam

IMPACT ASSESSMENT OF ALTERNATIVES

- Flooding
- Natural Resources – Fisheries, Water Quality, Wetlands
- Water Wells
- Aquatic / Fisheries Resource Assessment
- Cultural Resources
- Human and Aquatic Health
- Socioeconomic Environment – Boating, Fishing, Aesthetics

NATURAL RESOURCES - FISHERIES

- New Dam
  - Enhanced river herring passage into pond
  - Enhancement of pond fishery
- Dam Removal
  - Eliminate pond and existing freshwater fishery
  - Restore river as tidal coastal stream
  - Open river to diadromous & estuarine species producing a saltwater fishery

NATURAL RESOURCES – WATER QUALITY

- New Dam
  - No change from existing conditions
  - Low Dissolved Oxygen (DO) in deeper areas of pond in summer
- Dam Removal
  - Eliminate pond & low DO areas
  - Restore tidal coastal stream

NATURAL RESOURCES - WETLANDS

- New Dam
  - No change to existing wetland types
  - Benefits from increased forage base
- Dam Removal
  - Major habitat conversion from freshwater pond to mosaic of tidal creek, salt marsh, freshwater marsh and wooded wetlands
  - Loss of freshwater wetland functions while expanding former estuarine community

NEXT STEPS

- Public Comments
- Finalize “Draft” Feasibility Study
- Future Public Meeting(s)
- Select Alternative

Questions or Comments